

## ABSTRACT

A projection zoom lens system that is suited to a projector with a DMD is provided. The zoom lens system includes a fixed fifth lens group 5 that is positioned on the light modulator side and is used as the field lens that transmits the illuminating light and the projection light and a first lens group for focusing that is fixed during zooming, and is constructed of five groups arranged in negative, positive, positive, negative, positive order from the screen side. The third lens group moves significantly during 10 zooming as a variator, the second and fourth lens groups travel only so small distances as compensators but can correct various aberrations so well. Therefore, the movement of the fourth lens group that is the entrance pupil for the projection light outputted from the light valve is small, so that the active projection light is efficiently taken in and a 15 projection zoom lens system that can project bright, clear images can be provided.